A newly recorded genus with one new species of *Takanoella* (Diptera: Tachinidae) from China

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Abstract: One new species from China, *Takanoella flava* sp. nov., is described and illustrated. This is the first record of this genus in China.

Key words: Cyclorrhapha; Muscoidea; taxonomy

中国突颜寄蝇亚科一新纪录属及一新种（双翅目：寄蝇科）

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摘要：记述中国产突颜寄蝇亚科 1 新纪录属：塔克寄蝇属 *Takanoella* Baranov, 1935 及 1 新种：黄腹塔克寄蝇 *T. flava* sp. nov.。

关键词：环裂亚目；蝇总科；分类

Introduction

The genus *Takanoella* Baranov, 1935 belongs to the tribe Leucostomatini of the subfamily Phasiinae (Diptera: Tachinidae), with only one known species (*T. parvicornis*) from Hokkaido of Japan (Herting 1984; Herting & Dely-Draskovits 1993; Tschorsnig & Richter 1998). *Takanoella* can be distinguished from other genera of Phasiinae by the following main characters: eye and parafacial bare; gena narrower than width of palpus; occiput with yellowish or white hairs, at most 1–2 short black hairs behind postocular setae; prosternum and proepisternum bare; thorax dorsum with 4 longitudinal dark vittae; scutum with 2 postsutural acrostichal setae, 3 presutural dorsocentral, 2 postsutural intra-alar setae and first one shorter than notopleural seta, 3 katepisternal setae; scutellum with 3 pairs of marginal setae; legs black or partly reddish brown; postmetacoxal area sclerotized; hind coxa with 1–2 fine setae on posterodorsal margin; fore tibia with 1 preapical posteroventral seta, mid tibia with 1 ventral seta; wing without dark markings, vein cell r_{4+5} open; abdomen predominantly yellow or reddish yellow laterally; mid-dorsal depression on syntergite 1+2 confined to less than anterior half of the segment; abdomen covered with thin yellowish or grayish white pruinosity; tergites with discal and marginal setae. Apex of abdomen of female with pincers.

In this paper, *Takanoella* is newly reported from China and one new species is described

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Material and methods

Terminology for morphology and measurements follow Tschorsnig & Richter (1998).

Terminology of the male terminalia follows Sinclair (2000) and that of other structures follows McAlpine (1981). The dissection and drawings of male terminalia were carried out following the method described in detail by O'Hara (2002) and Wang *et al*. (2015).

The type specimens are deposited in the Insect Collection of Shenyang Normal University, Liaoning, China (SYNU).

Taxonomy

Takanoella Baranov 1935

Takanoella Baranov, 1935: 558. Type species: *Takanoella parvicornis* Baranov, 1935 by original designation. Holotype male, type locality: Sapporo (Hokkaido), Japan (also Honshu).

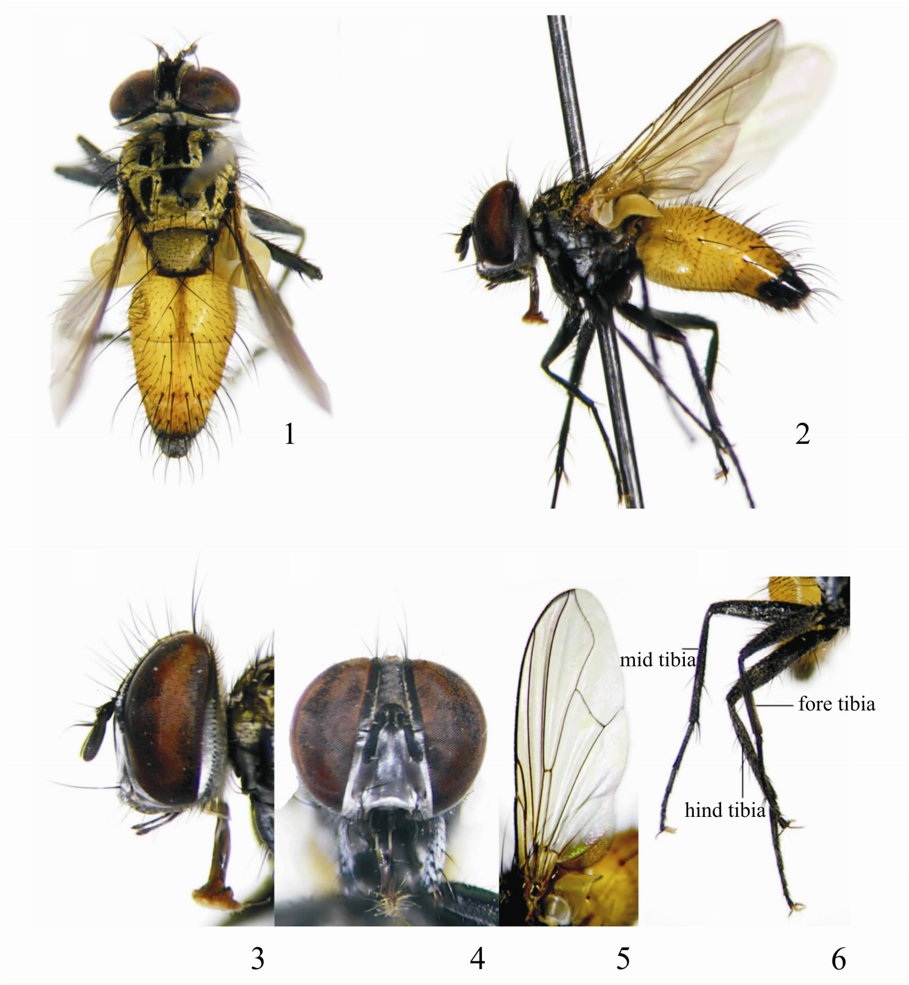
Takanoella flava sp. nov. (Figs. 1–10)

Diagnosis. Body yellow, palpus black; vertex 0.19–0.20 of head width, parafacial narrower than 1st flagellomere; thorax and scutellum covered with dense golden yellow pruinosity; tegula black, base of vein R_{4+5} with 1 fine seta dorsally and ventrally; legs black; abdomen mostly reddish yellow, black on base 1/4 of tergite 4 and entirely tergite 5.

Body length 6.8–7.0 mm. A yellow small-sized species (Figs. 1, 2).

Male. Coloration. Head and occiput brown to black in ground colour, covered with silvery white to yellowish white pruinosity. Frontal vitta dark brown to black. Fronto-orbital plate dark brown to black, covered with thin yellowish pruinosity. Parafacial and gena reddish brown, covered with dense silvery white pruinosity. Face yellowish brown, covered with silvery white pruinosity. Genal dilation reddish brown, covered with white pruinosity. Antenna and palpus dark brown to black. Prementum reddish brown. Thorax black in ground colour, dorsal tergites covered with dense golden yellow pruinosity, pleura covered with thin grayish white pruinosity. Scutellum black in ground colour, covered with dense golden yellow pruinosity. Wing hyaline, pale brown and yellowish on anterior margin. Tegula black, basicosta dark brown. Lower calypter entirely and uniformly yellow. Haltere yellow. Legs entirely black. Pulvillus yellowish brown. Abdomen mostly reddish yellow, black on basal 1/4 of tergite 4 and entire tergite 5, covered with thin yellowish white pruinosity.

Head (Figs. 3, 4). Eye nearly as high as head in lateral view. Vertex 0.19–0.20 of head width. Frontal vitta 1.8–2.0 times as wide as fronto-orbital plate at middle, the later slightly widened anteriorly. Parafacial 0.4–0.5 times as wide as 1st flagellomere at middle height in anterior view. Face weakly protruded, lower margin slightly forward, extending at base of vibrissa. Genal height less than width of palpus. Inner vertical seta strong, 0.55–0.60 times of eye height, outer vertical seta absent or undifferentiated with postocular seta. Ocellar seta fine, 0.42–0.45 times as long as inner vertical seta and 2–4 fine black hairs on the ocellar triangle. Two fine postocellar setae, apices bent forward, 0.4–0.5 times as long as inner vertical seta, 2 poster vertical setae, 0.34–0.37 times as long as inner vertical seta. 7–8 pairs frontal setae, 0.6–0.8 times as long as inner vertical seta, lowest seta inserted above the level of base of pedicel. Vibrissa inserted above level of lower margin of face, 0.9–1.0 times as long as face height. Facial ridge with 1–2 rather short hairs just above vibrissa and 4–5 short fine subvibrissal setae. Antenna with 1st flagellomere 2.8–2.9 times as long as wide and 1.8–2.0 times as long as pedicel. Pedicel bearing black hairs and a long seta, the latter 1.7–0.8 times as long as pedicel. Arista bare, 1st aristomere shorter than wide, 2nd aristomere 0.9–1.0 times as long as wide, 3rd thickened on basal 1/4. Palpus nearly cylindrical, only weakly widened near apex, subequal or shorter than pedicel and 1st flagellomere combined.

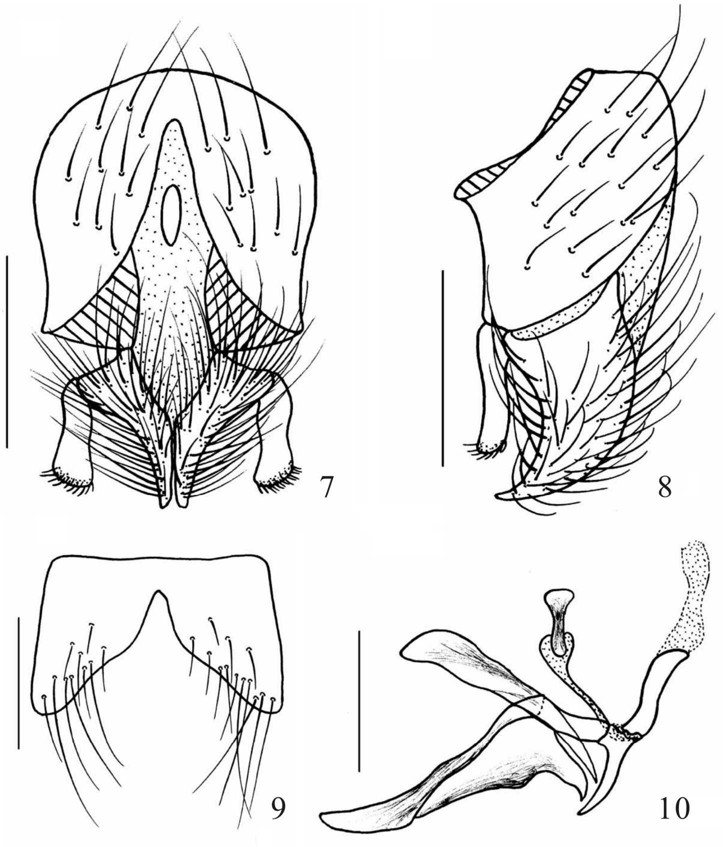


Figures 1–6. *Takanoella flava* sp. nov. ♂. 1, 2. Body, dorsal and lateral view; 3, 4. Head, lateral and anterior view; 5. Wing, dorsal view; 6. Legs, lateral view.

Thorax. Covered with short and erect black hairs. Postpronotum with 3 setae nearly arranged in a line. Two presutural and 2 postsutural acrostichal setae. Three presutural and 3 postsutural dorsocentral setae. Three supra-alar setae, anterior one short. Scutellum with a pair of apical, subapical and basal setae, the former strongly crossed at base, 1.70–1.74 times as long as scutellum, subapical seta strong, 2.3–2.4 times as long as scutellum, basal seta

1.70–1.74 times as long as scutellum. Katepisternum covered with a row of 5–6 fine hairs on lower margin, 4–5 fine hairs among 3 katepisternal setae. Katepimeron covered with hairs. Anepimeron covered with long black hairs and anepimeral seta strong. Wing (Fig. 5). Hyaline. Wing base without scale-like setae. 2nd costal section with fine hairs ventrally. Relative length of costal sections 2nd, 3rd and 4th approximately as 3 : 10 : 4. vein R_1 bare, base of vein R_{4+5} with 1 fine seta dorsally and ventrally. Cell r_{4+5} open. Bend of vein M rounded. Crossvein dm-cu nearly straight, 1.70–1.75 times as long as the last section of CuA_1. Lower calypter developed. Apex of halter slightly larger or subequal in size to posterior spiracle. Legs (Fig. 6). Fore tarsi 1.0–1.1 times as long as head height.

Claw of fore leg slightly shorter than combined 4th and 5th tarsomeres. Fore tibia with a row of 4–5 rather fine short anterodorsal and 2 posterodorsal setae, apex with 1 anterodorsal, 1 dorsal and 1 posteroventral seta. Mid tibia with 2 anterodorsal, 2 posterodosal and 1 ventral setae, apex with 2 dorsal, 2 anteroventral, (1 strong, 1 short), 2 posteroventral (1 strong and 1 short) setae. Hind tibia with 2 strong anterodorsal, 2 strong posterodosal and 4 anteroventral setae, apex with 1 dorsal, 1 anterodorsal and 1 anteroventral setae.



Figures 7–10. *Takanoella flava* sp. nov. 7, 8. Epandrium, cerci and surstyli, caudal and lateral view; 9. Sternite 5, ventral view; 10. Aedeagal apodeme, ejaculatory apodeme, hypandrium, pregonite, postgonite, basiphallus, distiphallus, lateral view. Scale bars = 0. 25 mm.

Abdomen. Ovate, broadly yellow. Hairs on dorsum black, spinulose and erect; syntergite 1+2 with 2 strong discal, 2–3 laterodiscal, 2 strong median marginal and 3 lateral marginal setae; 3rd tergite with 2 pairs of discal and a row of 8 marginal setae; 4th tergite with a row of 4–6 discal and a row of 8 marginal setae; 5th tergite with a row of 4–6 fine short discal and a row of 6 marginal setae.

Male terminalia (Figs. 7–10). fifth sternite deep V-shaped in ventral view, without membranous area anterior to the excavation, with fine long hairs on posterior lobe; cerci in dorsal view narrowly separated on whole length, lateral margin concave, apex pointed, with dense long and strong hairs, in lateral view dorsal margin arc-shaped and ventral margin concave near middle, base 1/2 inwardly concave, dorsal area portion with dense long and strong hairs; surstylus short, dorsal area of basal portion with dense and short hair fascicle, rounded apically; bacilliform sclerite short; pregonite slightly inferior curved near middle, pointed apically; postgonite near straight in lateral view; distiphallus elongate, distal area expanded laterally; ejaculatory apodeme short, nearly fan-shaped.

Female. Unknown.

Etymology. The specific epithet is from the Latin "*flavus*" meaning "yellow", referring to the mostly yellow abdominal tergites.

Holotype. ♂ (SYNU34085), **China,** Yunnan, Jingdong, Xujiaba, 2400 m, 24.05°N, 101.10°E, 01-VIII-2010, Chuntian ZHANG. **Paratype.** 1♂ (SYNU34086), same data as holotype.

Distribution. China (Yunnan).

Remarks. This species is close to *T. parvicornis* Baranov from Japan, but is distinguished from the latter in the following combination of characters: fronto-orbital plate covered with thin yellowish pruinosity (*T. parvicornis* with grayish white pruinosity), thorax and scutellum covered with dense golden yellow pruinosity (*T. parvicornis* with grayish white pruinosity), legs black (*T. parvicornis* tibiae reddish brown). Abdomen mostly reddish yellow (*T. parvicornis* mostly black, tergites 3 and 4 reddish yellow laterally), black on basal 1/4 of tergite 4 and entire tergite 5, 3rd tergite with 2 pairs of discal setae (*T. parvicornis* with 1 pair discal setae).

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